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ABSTRACT

This paper presents findings of a study that: (1) identified the most salient organization, personal, and professional factors contributing to administrator burnout; and (2) determined the relationship among these variables to each of the three dimensions of burnout. Data were obtained from a survey of 1,000 school administrators--169 elementary principals, 149 junior high/middle principals, 177 high school principals, and 161 superintendents--which produced 656 usable returns. Three subscales of the Maslach Burnout Inventory (MBI) were used to measure three dependent variables--emotional exhaustion, depersonalization, and personal accomplishment. Multiple regression analysis was used to examine the relationships with the following independent variables: administrator characteristics, and factors of social support, stress, coping, and personality. Findings indicate that emotional exhaustion was the central construct, which was most responsive to variables of job intensity (time, stress, and conflict) and positively associated with job satisfaction and effective coping. The study is unique in that it used multiple regression analysis to determine burnout's most salient influences. Little variance for depersonalization was explained by the independent variables; however, role ambiguity revealed the greatest variance in both cases. Therefore, different strategies are needed to address the separate dimensions of burnout. Strategies should address the need for moderating administrator time and intensity and providing clear role direction. Two tables are included. Contains 41 references. (LMI)

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The Impact of Personal, Professional, and Organizational Characteristics on Administrator Burnout

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The Impact of Personal, Professional, and Organizational Characteristics on Administrator Burnout

Due to difficult and challenging times, the position of school administrator appear less appealing to aspiring educators. For example, high school principalships have attracted fewer aspirants in recent years and is viewed as a burnout position. In response, popular writers and academic researchers have added volumes to the literature in the past decade on school administrator stress and burnout. Since 1980, over 90 studies have explored the causes, responses and consequences of administrator stress and burnout. These research studies have examined several levels or stages of stress, from its nature (Chichon and Koff, 1980), types and sources (Feitler & Tokar, 1981; Gmelch & Swent, 1982), responses (Gmelch, 1988; Swent, 1983), and consequences (Bloch, 1978) to administrators' coping effectiveness (Hiebert and Mendaglio, 1988). Most of these data-based studies have investigated the sources of burnout while fewer have explored the associations between burnout and stress, coping, job performance and satisfaction and such mediating variables as support systems, role conflict, personality, gender and age.

However, a growing body of evidence links the effects of burnout on job satisfaction, performance, health (Gmelch, Lovrich & Wilke, 1984; Keller, 1975) as well as the intervening impact of support systems (Sarros & Sarros, 1992), personality (Friedman and Rosenman, 1974), role conflict and ambiguity (Friesen & Sarros, 1989; Gmelch & Torelli, 1994; Kottkamp & Mansfield, 1985; Schwab & Iwaniki, 1982), and personal characteristics such as age and gender.

Data from the present study of school administrators were used previously to establish the correlational link between stress and burnout (Torelli & Gmelch, 1993), coping and stress (Gmelch & Chan, 1992, 1993), and the influence of role ambiguity and conflict on stress and burnout (Gmelch & Torelli, 1994). However, the purpose of this analysis is to broaden the investigation: (1) to identify the most salient organizational, personal, and professional factors contributing to administrator burnout, and (2) to determine the pattern linking these variables to each of the three dimensions of burnout.

Theoretical Framework

Occupational Stress and Burnout

A number of models have emerged since the 1970's which recognize the components of stress. Many of these components identified are similar and provide the cornerstones for the present study. McGrath (1976) first explained stress as a four stage, closed-loop process beginning with situations in the environment (A), which are then perceived by the individual (B), to which the individual selects the response (C), resulting in consequences for both the individual and the situation (D), which closes the loop. Each of the four stages is connected by the linking process of cognitive appraisal, decision, performance, and outcome.

The four stages postulated by McGrath have served as sound building blocks for the development of stress models. Each subsequent model appears to have been personalized with appropriate feedback loops, mediating variables, and process variables embellishing the relationship among the four basic stages in a manner to meet the research and application needs of each investigator.

In a like manner, the Administrator Stress Cycle (Gmelch, 1982) has been built on McGrath's foundation. This four-stage stress cycle guides the present study of burnout in educational administrators. The first stage of the cycle is a set of demands, or stressors,

placed on administrators. While McGrath hypothesized six dimensions of stress, most measures of job-related stress fail to reflect this multidimensionality (e.g., Indik, Seashore, & Slesinger, 1964). A study by Gmelch and Swent (1982) sought to overcome this deficiency in stress measures and developed the Administrative Stress Index which reflected the multidimensionality of administrator stress. Through factor analysis, four sources of stress were identified which approximate McGrath's hypothesized dimensions: (1) **role -based stress,** perceived from administrator's role-set interactions and beliefs or attitudes about his or her role in the schools; (2) **task-based stress**, arising from the performance of day-to-day administrative activities, from telephone and staff interruptions, meetings, writing memos and reports, to participating in school activities outside of the normal working hours; (3) **boundary-spanning stress**, emanating from external conditions, such as negotiations and gaining public support for school budgets; and (4) **conflict-mediating stress** arising from the administrator handling conflicts within the school such as trying to resolve differences between and among students, resolving parent and school conflicts, and handling student discipline problems.

Stage two consists of the perception or interpretation of the stressors by the individual. Administrators who perceive demands as harmful or demanding will create stress within their lives and approach their work with intensity. The classic study of the effects of Type A behavior on health by Friedman and Rosenman (1974) highlights the impact of perception on stress.

The third stage of the cycle presents choices to the individual. The administrator responds to the stressor if it is perceived to be harmful, threatening, or demanding. Individuals use coping strategies when they believe they can counteract the stressor in a positive manner.

The fourth stage of the stress cycle, consequences, takes into account the long range effects of stress. The consequences can lead to headaches, ulcers, illnesses, or disability. Maslach and Jackson (1981) separated the consequences of stress into three dimensions of burnout: **emotional exhaustion**, **depersonalization**, and feelings of low **personal accomplishments**.

Study Design

Subject Sample

In the spring of 1991 one thousand subjects were stratfied and randomly selected from each of the following categories in public school administration: 250 elementary principals, 250 junior high/middle school principals, 250 high school principals and 250 superintendents. Each administrator was mailed an Administrator Work Inventory (AWI). Seven-hundred and forty were returned for a 74% response rate. However, due to missing data, 656 surveys were used for data analysis. Reponses by administrative position were consistent across all levels (169 elementary school principals, 149 junior high/middle school principals, 177 high school principals, and 161 superintendents).

Instrument Development

The Administrator Work Inventory was comprised of six instruments: the Administrator Stress Index (Gmelch & Swent, 1984); the Maslach Burnout Inventory (Maslach & Jackson, 1981, 1986); the Administrative Role Questionnaire (House, Rizzo, & Lirtzman, 1970); the Sayles Type A Personality (Caplan, et al., 1980); the Social Support instrument (Caplan, et al., 1980); and the Bem Sex-Role Inventory (Bem, 1975, 1981). An explanation of each of these instruments follows.

Administrator Stress Index (ASI). The Administrator Stress Index, developed and validated by Gmelch and Swent (1984) contains, 31 items. Respondents are asked to indicate perceptions of various situations as sources of concern. Using a five point Likert-type scale of *rarely or never bothers me* to *frequently bothers me*, respondents indicated their level of stress. Furthermore, for each item, respondents are asked to indicate on a five point Likert-type scale their perceived coping ability from *not at all effective* to *very effective*. This method for quantifying emotional reaction has been used successfully both clinically (Cotler and Guerra, 1976; Hiebert and Fox, 1981) and in survey instruments (Gmelch, Lovrich, and Wilke, 1984; Hiebert and Mendaglio, 1988). From a factor analysis by Koch, Tung, Gmelch, and Swent (1984) and again by Gmelch and Torrelli (1993), four stress factors and four coping factors emerged. The four stress factors identified are task-based, role-based, conflict-mediating, and boundary-spanning. The same categories also emerged as the four coping factors.

Maslach Burnout Inventory (MBI). The MBI is recognized and used extensively in research on burnout and the helping professions (Cordes & Dougherty, 1993). It contains 22 seven point Likert-type scale questions and has been tested, validated, and normed for educators. Three dimensions of burnout are assessed: emotional exhaustion, depersonalization, and personal accomplishment. Personal accomplishment is reverse scored such that reduced personal accomplishment is related to burnout.

Administrative Role Questionnaire. This 14 item instrument was developed by House, Rizzo and Lirtzman to determine the level of perceived role ambiguity (reverse scored) and role conflict (1970). A psychometric evaluation of this instrument across six samples concluded that its use is warrented (Tracy & Johnson, 1981; Schuler, Aldag & Brief, 1977). Also, a few studies using multiple methods have found agreement between the questionnaire and interview data on role conflict and ambiguity (e.g., Caplan, et. al., 1980).

Social Support Questionnaire. This component of the survey was adapted from Caplan's study of job demands and worker health at the University of Michigan (Caplan, et al., 1980). Thoits (1982) argues that social support must include elements of both sources and types of support, not merely the amount of support individuals feel they receive. This section of the survey is composed of nine questions allowing respondents to indicate on a five point Likert-type scale the degree to which they receive support from their immediate supervisor, colleagues, family and friends as well as the type of help they receive in solving work related problems, heavy workload, and constructive feedback on performance.

Type A Personality. The Type A personality component of the survey is comprised of 10 questions. Developed by Salyes (in Caplan, et al., 1980) from Friedman and Rosenman's Type A behavior research (1974), the Salyes Type A Personality instrument attempts to identify the degree to which individuals possess Type A behavior traits. Again, this component of the Administrator Work Inventory is composed of Likert-type scale questions.

Bem Sex-Role Inventory (BSRI). Developed by Sandra Bem (1981), the Bem Inventory attempts to assess individuals tendency towards four sex-role categories: undifferentiated, masculine, feminine, and androgynous. An androgynous individual is one who possesses both high masculine and feminine sex-role traits, while the undifferentiated scores low in both. A masculine individual scores high in the masculine sex-role traits and low in the feminine traits, while a person identified as feminine scores the reverse. The Bem Inventory measures 30 personality characteristics of respondents

on a seven point Likert-type scale of *never or almost never true* to *always or almost always true*.

In addition to the six validated instruments, fourteen questions comprised the demographic section to assess variables in the **personal** area (age, gender, physical health, and hours of exercise) and **professional** area (position, years in administration, years in current position, level of position [elementary, middle school, high school or superintendent], hours of overtime worked, administrative performance, and job satisfaction). With respect to job satisfaction, physical health, and current performance, administrators were asked to assess each dimension on a five point Likert-type scale. The **organizational** domain assessed the grade level of school, number of students in school, and number of students in school district in addition to the Social Support instrument, Administrative Role Questionnaire, and Administrator Stress Index.

Dependent and Independent Variables

The dependent variables were the three subscales of the MBI: emotional exhaustion (EE), depersonalization (DP), and personal accomplishment (PA). The independent variables were age, years as administrator, satisfaction with current position, current performance as an administrator, physical health, total level of stress as a result of one's job, role conflict, role ambiguity, overall level of stress felt as administrator, and total level of coping with stress. Other independent variables were the social support questions, the four stress factors (task-based, role-based, conflict-mediating, and boundary-spanning) the four coping factors (task-based, role-based, conflict-mediating, and boundary-spanning), and the two personality factors (competition and challenge). The categorical variables of gender, position (elementary school principal, middle/junior high school principal, senior high school principal, and superintendent), sex-role classification (undifferentiated, masculine, feminine, and androgynous) were also used in the analysis but are not reported in the correlational analysis due to the ordinal or nominal nature of their assessment (Babbie, 1986).

Data Analysis

Percentage distributions were generated for the demographic information. Furthermore, Persons-Product Moment correlations for the analysis of relationships between the dependent and independent variables were computed. Interactive stepwise multiple regression analysis ($p = .05$) on Systat 5.1 occurred to develop models for predicting EE, DP, and PA. This study used a method of successive elimination correcting the effect of each independent variable on the dependent variables of EE, DP, and PA. This method can be used where there are three or more independent variables related to the dependent variable (Ezekiel & Fox, 1941). The shorter mathematical method of regression analysis was used to sift out the less influential variables and accentuate the most salient influences on burnout. Thus, these models provide the best estimate of the dependent variables using the independent variables. Through this process theoretical tenets may be compared to those which are found in practice. However, one problem with this processes is that the models may be tailored to this data set.

This study used a method of allowing for the effect of other independent variables to determine the true relationships of each one to the dependent factor, burnout, by first correcting for one, and then for another and so on -- a method of *successive elimination*.

Results

Demographics

The average subject was 47 years of age and had 14 years of administrative experience. Twenty-three percent of the administrators were female and 77% were male. Most administrators had been in their present position for six years, working an average of 54 hours a week. For those who worked overtime, seven hours a week was normal. The majority of administrators stated that they it was highly probable that they would choose administration again. Administrators surveyed, on the average, worked in school districts with a student population of around 8500. Furthermore, the average size school for principals was around 550 students. Generally, the administrators attributed 65% of their total stress to their work and reported that they coped with stress effectively. Finally, these administrators felt that they were performing their jobs well and were very satisfied with administration.

Correlations

Pearson-product moment correlations were run to provide insights into the strength of the relationships between variables (see Table 1). All coefficients above .08 were significant at the $p < .05$ level; coefficients above .13 were significant at the $p < .001$ level. The strongest correlations were between the burnout dimension of emotional exhaustion and general level of stress ($r = .57$), task-based stress ($r = .51$) and conflict-mediating stress ($r = .41$). Strong negative correlations existed between stress and coping ($r = -.54$), that is, the more effective one's coping ability the less stress one experiences.

Job Satisfaction

The strongest negative correlation existed between job satisfaction and the burnout dimension of emotional exhaustion ($r = -.47$), and less convincing correlations with the other dimensions of burnout (depersonalization $r = -.18$; and personal accomplishment $r = .26$). However, all three correlations between the dimensions of burnout and job satisfaction infer that those with higher levels of job satisfaction experience less burnout. Also, strong inverse associations existed between job satisfaction and role-based stress ($r = -.38$), task-based stress ($r = .-33$), and the overall level of stress ($r = -.36$). Conversely, positive correlations were found between job satisfaction and overall coping effectiveness ($r = .26$), particularly role-based coping ($r = .37$) and task-based coping ($r = .36$).

Burnout, Stress, and Coping

Strong associations have already been reported from this study between emotional exhaustion and the four factors of stress (Torelli & Gmelch, 1993), and the four coping factors (Gmelch & Chan, 1992) -- even more so than the other dimensions of burnout. These positive and negative correlations, respectively, also appear in Table 1. Given the fact that the other burnout dimensions (depersonalization and personal accomplishments) are highly intercorrelated ($r = .76$), it appears that emotional exhaustion seems to be most sensitive to the impact of stress and other independent variables.

Social Support

While the support-stress paradigm was verified for faculty by Neumann and Finaly-Neumann (1990), the exploration into administrative stress has yet to be investigated. In this study, the role of social support's impact on job satisfaction, burnout, and performance was assessed. Preliminary analysis revealed that the three levels of assistance (supervisor, colleagues and family) were correlated across thge type of help received. Therefore, for simplification the nine items were combined to three levels of assistance. Of these levels (supervisor, colleagues, and family), support from one's

supervisor has the strongest correlation with job satisfaction (r =.29) and support of family is most highly correlated with administrators' perception of their of performance as administrators. Support of colleagues is associated with satisfaction (r =.18) and performance (r =.14). A weak correlation between burnout dimensions and social support emanates from feelings of personal accomplishment with support from all three levels (supervisor, colleagues and family). Overall, however, support of supervisor seemed to be the most strongly correlated level of assistancewith all three dimensions of burnout.

Personality

While research studies assess Type A behavior as a unidimensional construct, the initial factor analysis of the 10 item Sayles Type A behavior, factor analysis of the data from this study reveals that two factors exist -- work **competition** and **challenge.** The first factor, explaining 28.6 % of the total variance, is composed of items which reflect the respondents' competitiveness. The second factor, explaining 18.6% of the total variance is composed of items which reflect the degree to which respondents thrive on challenge. These two factors appeared to have opposite effects on the variables assessed in this study. The competitive Type A approach had a slight, but negative impact on physical health (r =-.10), whereas challenge had a slightly positive influence on health (r =.11). The same pattern held true with regard to stress factors (e.g., competition positively correlated and challenge negatively correlated), emotional exhaustion (competition r =.30 and challenge r =-.10), personal accomplishment (positively correlated with challenge (r =.18)).

With regard to coping factors, supervisor and collegial support, and satisfaction, the competitive nature of Type A correlates negatively, whereas challenge displays signficant positive correlations. Conversely, stress and performance are more associated with competition and relatively unassociated with challenge.

Administrator Performance

The most significant correlation with administrative performance is job satisfaction (r =.36). Performance is also positively associated with the Type A trait of "challenge" (r =.24) but not with "competition" (r =.01). Those variables that negatively correlate with administrative performance (above the .20 level) are conflict-mediating stress, task-based stress, overall level of stress, and emotional exhaustion. Conversely the stress coping factors are positively correlated with administrator performance. Overall, it is interesting to note that administrative performance is more associated with effective coping (coping factors) than by stress (stress factors).

Multiple Regression Analysis

Interactive stepwise multiple regression analysis was used to determine which variables were significant at the .05 level for predicting burnout on each of the three dimensions. As shown in Table 2, seven variables explained the greatest amount of variance in predicting an increase in emotional exhaustion in educational administrators, accounting for 47 percent of the variance. Task-based stress explained 25% of the variance in the emotional exhaustion dimension, job satisfaction accounted for 10%, overall coping effectiveness 4%, and 2% from each of the following: overall stress, conflict-mediating stress, the competitive dimension of Type A behavior and physical health.

TABLE 2
Multiple Regression Analysis

Variable	Significance	R^2 (Explained Variance)
Emotional Exhaustion		
Task-based Stress	.00	.25
Satisfaction	.00	.10
Administrative Coping	.00	.04
Conflict-mediating Stress	.00	.02
Competitive Approach	.00	.02
Physical Health	.00	.02
Administrative Stress	.00	.02
		Total R^2 = .47
Depersonalization		
Ambiguity	.00	.06
Conflict-based Stress	.00	.02
		Total R^2 = .08
Personal Accomplishment		
Ambiguity	.00	.11
Boundary-Spanning Coping	.00	.02
Satisfaction	.00	.02
Support of Family	.00	.01
		Total R^2 = .16

Two variables showed the greatest statistical significance in influencing depersonalization: job ambiguity (6%) and conflict-mediating stress (2%), explaining only 8% of the variance. Ambiguity had even more influence in explaining personal accomplishment (11%) along with boundary-spanning stress (2%), job satisfaction (2%), and support from family and friends(1%).

In summary, the regression analysis showed that emotional exhaustion is most easily explained by the variables assessed in this study. Time pressures (task-based stress), competition (Type A behavior), stress and conflict impact administrators' feelings of emotional exhaustion, resulting in job dissatisfaction. Both effective coping and good health represent positive resisters to emotional exhaustion. While emotional exhaustion appears to be linked with the time and conflict pressures of the position, both the other dimensions of burnout (depersonalization and feelings of low personal accomplishment) are most influenced by role ambiguity.

Discussion of the Findings

It has been argued by others that unless burnout is tested as a multidimensional construct, little progress will be made in determining its link with other variables (Maslach & Jackson, 1986; Bynre, 1992). As such, emotional exhaustion stands as the central construct since it is most responsive to variables of job intensity (time, stress and conflict) and positively associated with job satisfaction and effective coping. Depersonalization and reduced personal accomplishment are highly intercorrelated (r =.76) and reflect similar influences from job ambiguity.

The intercorrelated paths leading from the personal, professional and organizational variables to the three dimensions of burnout and the consequences of health and performance reflect the findings in the literature. Emotional exhaustion and personal accomplishments are clearly linked to job performance, as job performance is strongly related to positive health, effective coping, job challenge, stress, role conflict and ambiguity, and job satisfaction. Administrator's health is impacted by a number of personal and professional variables such as, on the positive side, exercise, coping, job satisfaction, and administrative performance, and negatively by role conflict and ambiguity, stress, and emotional exhaustion.

Argyris (1964) and Cooper (1973), among others, first suggested the importance of the interpersonal conditions--stress association in organizations. When interpersonal relationships are not satisfactory to an employee, stress often results (Kahn, et al., 1964; French & Caplan, 1973). Recently, research on social support has expanded rapidly and has been viewed as a mediating variable that might reduce the negative consequences of stress and improved performance (Etzion, 1982; House, 1981; Neumann & Finaly-Neumann, 1990; Sarros & Sarros, 1989; Thoits, 1982). While the negative effect of social support on stress is well established, "a supportive boss might make work situations less stressful; good relationships with colleagues might reduce work-related stress; the same situations might be cognitively appraised and less stressful by socially integrated people than by isolated ones" (Neumann & Finaly-Neumann, 1990, p. 567).

Although investigated in most studies as a single construct, recent research suggested that support should be viewed both by source and type (Sarros & Sarros, 1992). The AWI asked nine questions to assess the three type of support in terms of help with (1) work-related problems, (2) workload, and (3) performance feedback as well as three sources -- supervisors, colleagues and family and friends. Due to the intercorrelations, the nine items were combined by the three sources of assistance. Those variables correlating moderately (correlations >.20) with collegial and family support were few, especially with respect to support from family and friends (with performance .23) and collegial support (with role ambiguity .21). As expected most of the significant correlations were with supervisory support, especially beneficial with regard to role conflict and ambiguity as well as role-based stress and overall stress. Supervisory support also correlated positively with role-based coping and job satisfaction.

Beehr (1985) inferred from his analysis that social support may be the cure for stress-related disorders. As the social support research has been refined and expanded by the Sarros's (1992) and this study, it is becoming more apparent that support is both ambiguous and inconclusive as a resource for burnout prevention and stress reduction. Also, these findings suggest that social support is a multifaceted resource that works better in some situations depending on the source. Clearly, support from one's supervisor has a greater impact than the other sources investigated in this study. For instance, administrators' support from their supervisors appears to be critical to help reduce the feelings of role conflict and ambiguity as well as role-based stress. While this study did not confirm strong correlations between support and burnout, others have testified that support from supervisor can help alleviate educator burnout (Sarros & Sarros, 1992; Jackson, Schwab & Schuler, 1986). However, further research is still recommended.

Finally, while other studies have investigated two or three variables as they relate to burnout, the uniqueness of this study is the use of multiple independent variables assessed and related to burnout. This study used regression analysis to sift out the less influential variables and accentuate the most salient influences on burnout. Only the burnout dimension of emotional exhaustion was explained by a significant percent of variance, most of which related to task-based stress. Little variance for depersonalization

and personal accomplishment was explained by the plethora of independent variables; however, role ambiguity revealed the greatest variance in both cases.

Therefore, different strategies must be taken for separate dimensions of burnout in order to pave a more manageable road currently destined for burnout . The time-pressure and intensity with which administrators travel their road must be modified in order to moderate the emotional exhaustion experienced along the way. Also, it is not just the pace of the travel but the ambiguous direction which leads administrators to a place often characterized by feelings of depersonalization and lack of personal accomplishment. To properly navigate and divert the turbulent road to burnout, administrators must be equipped with both a better **clock** and **compass** for the journey ahead.

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Table 1

Continued

Predictor Variables	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
1. Age															
2. Physical health															
3. Hours of exercise															
4. Years as administrator															
5. Role conflict															
6. Role ambiguity															
7. Conflict-mediating stress															
8. Role-based stress															
9. Boundary-spanning stress															
10. Task-based stress															
11. Administrative stress															
12. Competitive approach	1.00														
13. Accept challenges	0.27	1.00													
14. Boundary-spanning coping	-0.01	0.19	1.00												
15. Role-based coping	-0.14	0.17	0.48	1.00											
16. Conflict-mediating coping	-0.10	0.15	0.44	0.45	1.00										
17. Task-based coping	-0.15	0.12	0.40	0.43	0.41	1.00									
18. Administrative coping	-0.16	0.18	0.45	0.53	0.46	0.50	1.00								
19. Performance	0.01	0.24	0.22	0.22	0.24	0.16	0.26	1.00							
20. Satisfaction	-0.15	0.12	0.17	0.37	0.20	0.26	0.36	0.37	1.00						
21. Emotional exhaustion	0.30	-0.10	-0.23	-0.34	-0.31	-0.39	-0.46	-0.26	-0.47	1.00					
22. Depersonalization	0.04	-0.09	-0.11	-0.10	-0.08	-0.13	-0.10	-0.10	-0.18	-0.12	1.00				
23. Personal accomplishment	-0.02	0.18	0.21	0.22	0.19	0.18	0.21	0.23	0.27	0.04	-0.77	1.00			
24. Support of supervisor	-0.13	0.03	0.03	0.26	0.03	0.12	0.09	0.04	0.29	-0.12	-0.12	0.18	1.00		
25. Support of colleagues	-0.15	0.09	0.12	0.12	0.06	0.07	0.16	0.14	0.18	-0.14	-0.09	0.17	0.27	1.00	
26. Support of family/friends	-0.06	0.10	0.10	0.12	0.03	0.07	0.04	0.23	0.09	0.00	-0.08	0.15	0.17	0.37	1.00

Note. All coeffiecients above 0.08 are significant at the $p < .05$ level. All coefficients above 0.13 are significant at the $p < .001$.

Table 1

Matrix of Correlations

Predictor Variables	N	M	SD	1	2	3	4	5	6	7	8	9	10	11
1. Age	654	47.59	6.12	1.00										
2. Physical health	656	3.70	0.89	0.22	1.00									
3. Hours of exercise	653	2.94	2.81	0.17	0.28	1.00								
4. Years as administrator	655	14.23	18.47	0.20	0.08	0.08	1.00							
5. Role conflict	652	3.97	1.21	-0.21	-0.20	-0.11	-0.02	1.00						
6. Role ambiguity	653	4.93	1.14	0.16	0.32	0.16	0.04	-0.38	1.00					
7. Conflict-mediating stress	655	9.95	3.31	-0.07	-0.09	-0.06	0.01	0.23	-0.25	1.00				
8. Role-based stress	655	9.53	3.59	-0.07	-0.20	-0.05	-0.04	0.38	-0.35	0.29	1.00			
9. Boundary-spanning stress	655	9.95	3.40	-0.03	-0.11	-0.04	0.03	0.32	-0.18	0.34	0.39	1.00		
10. Task-based stress	655	12.15	3.75	-0.16	-0.21	-0.14	-0.04	0.40	-0.29	0.44	0.37	0.36	1.00	
11. Administrative stress	651	2.99	0.96	-0.10	-0.24	-0.17	-0.01	0.39	-0.28	0.52	0.43	0.43	0.60	1.00
12. Competitive approach	627	15.23	3.86	-0.10	-0.11	-0.07	-0.04	0.25	-0.16	0.13	0.21	0.13	0.29	0.29
13. Accept challenges	627	16.85	2.82	0.02	0.11	0.11	-0.06	0.06	0.13	-0.18	-0.09	-0.12	-0.02	-0.14
14. Boundary-spanning coping	647	15.38	2.78	0.09	0.14	0.11	0.00	-0.19	0.26	-0.34	-0.24	-0.50	-0.27	-0.30
15. Role-based coping	647	15.38	3.02	0.09	0.27	0.05	0.02	-0.28	0.37	-0.29	-0.65	-0.29	-0.28	-0.38
16. Conflict-mediating coping	647	15.87	2.49	0.07	0.17	0.06	-0.03	-0.17	0.26	-0.39	-0.19	-0.23	-0.27	-0.34
17. Task-based coping	647	14.08	3.39	0.10	0.20	0.11	-0.02	-0.29	0.29	-0.33	-0.26	-0.24	-0.50	-0.42
18. Administrative coping	642	3.75	0.68	0.11	0.30	0.20	0.04	-0.30	0.29	-0.29	-0.32	-0.25	-0.40	-0.54
19. Performance	656	4.23	0.55	0.14	0.28	0.12	0.06	-0.15	0.32	-0.22	-0.16	-0.09	-0.20	-0.23
20. Satisfaction	656	4.07	0.89	0.12	0.28	0.11	0.13	-0.35	0.40	-0.24	-0.37	-0.18	-0.32	-0.37
21. Emotional exhaustion	640	17.91	9.90	-0.22	-0.33	-0.19	0.00	0.39	-0.27	0.41	0.35	0.29	0.51	0.57
22. Depersonalization	638	9.40	14.97	-0.05	-0.05	-0.09	-0.03	0.11	-0.26	0.18	0.06	0.05	0.14	0.19
23. Personal accomplishment	641	37.08	9.72	0.01	0.09	0.12	0.03	-0.11	0.34	-0.19	-0.14	-0.11	-0.12	-0.23
24. Support of supervisor	654	9.76	3.03	0.05	0.10	0.07	0.01	-0.21	0.33	-0.02	-0.32	-0.11	-0.21	-0.14
25. Support of colleagues	654	11.04	2.42	0.13	0.09	0.12	0.05	-0.13	0.21	-0.10	-0.06	-0.10	-0.06	-0.14
26. Support of family/friends	654	10.64	3.01	0.05	0.06	0.03	-0.02	0.01	0.12	-0.08	-0.07	-0.11	-0.02	-0.02

Note. All coeffiecients above 0.08 are significant at the p< .05 level. All coefficients above 0.13 are significant at the p< .001.